

Title (en)  
ANGIOGENIC CONDITIONING TO ENHANCE CARDIAC CELLULAR REPROGRAMMING OF FIBROBLASTS OF THE INFARCTED MYOCARDIUM

Title (de)  
ANGIOGENE KONDITIONIERUNG ZUR VERBESSERUNG DER KARDIALEN ZELLREPROGRAMMIERUNG VON FIBROBLASTEN EINES INFARZierten MYOKARDS

Title (fr)  
CONDITIONNEMENT ANGIOGENIQUE POUR AMELIORER LA REPROGRAMMATION CELLULAIRE CARDIAQUE DE FIBROBLASTES DU MYOCARDE AYANT SUBI UN INFARCTUS

Publication  
**EP 2914114 A4 20151104 (EN)**

Application  
**EP 13850199 A 20131101**

Priority  
• US 201261721604 P 20121102  
• US 2013068086 W 20131101

Abstract (en)  
[origin: WO2014071199A1] Provided is a method of treating coronary artery disease in a mammal, comprising administering to a region of the heart of the mammal (a) a first vector encoding one or more angiogenic proteins which induce vascularization in the heart of the mammal, and (b) a second vector encoding one or more cardio-differentiating transcription factors which induce the production of induced cardiomyocytes (iCM) in the heart of the mammal, whereby the coronary artery disease in the mammal is treated. In a preferred embodiment, the first vector is an adenoviral vector encoding VEGF and the second vector is a lentiviral vector encoding Gata4, Mef2c, and Tbx5 (GMT).

IPC 8 full level  
**A01N 63/00** (2006.01); **A61K 38/00** (2006.01); **A61K 48/00** (2006.01); **C07K 14/00** (2006.01); **C07K 14/52** (2006.01); **C12N 5/00** (2006.01)

CPC (source: EP US)  
**A61K 38/1709** (2013.01 - US); **A61K 38/1866** (2013.01 - US); **A61K 48/00** (2013.01 - US); **A61K 48/005** (2013.01 - EP US); **C07K 14/47** (2013.01 - US); **C07K 14/49** (2013.01 - US); **C07K 14/52** (2013.01 - EP US); **A61K 38/00** (2013.01 - EP US); **C12N 2710/10341** (2013.01 - EP US); **C12N 2740/15041** (2013.01 - EP US)

Citation (search report)  
• [I] WO 2009145761 A1 20091203 - MAYO FOUNDATION [US], et al  
• [Y] WO 2011139688 A2 20111110 - DAVID GLADSTONE INST [US], et al  
• [Y] WO 0212539 A2 20020214 - MGVS LTD [IL], et al  
• [XP] M. MATHISON ET AL: "In Vivo Cardiac Cellular Reprogramming Efficacy Is Enhanced by Angiogenic Preconditioning of the Infarcted Myocardium With Vascular Endothelial Growth Factor", JOURNAL OF THE AMERICAN HEART ASSOCIATION, vol. 1, no. 6, 19 December 2012 (2012-12-19), pages e005652 - e005652, XP055215816, DOI: 10.1161/JAHA.112.005652  
• See references of WO 2014071199A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2014071199 A1 20140508**; EP 2914114 A1 20150909; EP 2914114 A4 20151104; EP 2914114 B1 20171004; EP 3329779 A1 20180606; EP 3329779 B1 20190605; ES 2651716 T3 20180129; HK 1213739 A1 20160715; US 10383916 B2 20190820; US 2015290290 A1 20151015; US 2019358297 A1 20191128; US 2022088143 A1 20220324

DOCDB simple family (application)  
**US 2013068086 W 20131101**; EP 13850199 A 20131101; EP 17194540 A 20131101; ES 13850199 T 20131101; HK 16101853 A 20160218; US 201314439357 A 20131101; US 201916537325 A 20190809; US 202117546951 A 20211209